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Dario Parata

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EXAMINER

SHEDRICK, CHARLES TERRELL

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/15/10 have been fully considered but they are not persuasive.
2. Specifically, Sykes, Diacakis, and Duffett-Smith, taken either alone or in combination, do not disclose or suggest at least Applicant's claimed "transforming said geographic data in a respective set of values of network related entities, said respective set of values being expected to be associated with a mobile terminal of said mobile network when located in the corresponding target area and weighted by margins of measurement accuracy," as recited in claim 30 (and similarly in claim 45) (emphasis added).
3. However, The Examiner respectfully disagrees.
4. Given the Broadest reasonable interpretation the prior art of record would still read on a "weighted by margins of measurement accuracy". The Examiner's interpretation of the limitation is such that a particular parameter is weight by a certain degree based on the level on the level i.e., margin) of error/accuracy (e.g., a correction factor). The Examiner's interpretation appears to be consistent and therefore reasonable based on the Applicants disclosure. The Applicants original disclosure page 14 lines 30-35, which indicates that the margins of accuracy are essentially probabilistic index values and further elaborates on how the index values are calculated. In short, the limitation is such that a particular parameter is weight by a certain degree based on the level on the level (i.e., margin) of error/accuracy (e.g., a correction factor).
5. Duffett-Smith teaches in cited paragraph 0033, the timing measurements made by the MS (not shown) along with the positions of BTSs 301, 302, 303, 304, 305 are used to calculate a

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coarse location 306 of the MS using an E-OTD method. The direction 301b, 302b, 303b, 304b, 305b and beam half-width (half that between two half-power angles 301a, 302a, 303a, 304a, 305a) of each uniquely identified BTS is used to determine which BTSs are transmitting towards the MS coarse position 306. In this example, the BTSs 301, 302 and 304, are transmitting towards the MS, and the corresponding timing measurements made on these **signals are then allocated higher weights than the weights allocated to BTSs which point away, e.g. 303, in the subsequent calculation of the more-accurate MS position 307.** This is illustrated by the table fragment (Table 1 below) where the BTS identity, timing offset measured by the MS (relative to the serving cell 304), and assigned weight are shown. **Although BTSs 303 and 305 radiate in directions away from the MS coarse position 306, the measurements made using those signals nevertheless carry useful information as mentioned above. They are therefore assigned weights greater than zero, according to their importance in constraining the accuracy of the more-accurate position solution, but less than the unity weighting assigned to the measurements of the signals from the directly-received BTSs 301, 302 and 304. For example, the BTS 303 is assigned a weight of 0.22 corresponding to the average probability of measurements made on the signals from a BTS in that relative configuration, which in this case has been predetermined by calibration across the network as a whole. The coarse position 306 is close enough to BTS 305 to be considered, by pre-calibration, able to receive signals from the back lobe, so the corresponding measurement is allocated a higher weighting in the table.** (The relative receive timings are not proportional to the distances between the BTSs and the MS both because of multipath propagation and the lack of synchronisation of BTSs in the GSM system.)

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6. Therefore, Based on the teaching of Duffett-Smith in combination with the cited art, it would have been obvious to a person of ordinary skill in the art to use weighting for the purpose of accuracy measures in location systems.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES SHEDRICK whose telephone number is (571)272-8621. The examiner can normally be reached on Monday thru Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles Shedrick/
Examiner, Art Unit 2617